Lava Beds National Monument

Unit 4 - Activity A - Bats of Lava Beds - Teacher Answer Sheet

- 1. Another word for a baby bat is a **PUP.**
- 2. A maternity colony is

A GROUP OF FEMALE BATS GATHERED TOGETHER TO HAVE THEIR PUPS

3. Echolocation is

A SOUND A BAT MAKES THAT BOUNCES OFF OF OBJECTS.

4. Hibernation is when

AN ANIMAL'S METABOLISM SLOWS DOWN ITS HEART RATE, BREATHING AND RESPIRATION SLOW DOWN

- 5. A roost is where a bat rests.
- 6. The **Mexican Free-tailed bat** usually roosts (lives) in these places:

The **Pallid bat** usually roosts (lives) in these places:

The **Silver-haired bat** usually roosts (lives) in these places:

The **Townsend's Big-eared bat** usually roosts (lives) in these places:

7. Does this bat hibernate or migrate?

Mexican Free-tailed bat MIGRATE
Pallid bat HIBERNATE
Silver-haired bat MIGRATE
Townsend's Big-eared bat HIBERNATE

8. The **Mexican Free-tailed** bat can weigh 10 to 15 grams.

The **Pallid** bat can weigh 28 to 37 grams.

The **Silver-haired** bat can weigh 8 to 11 grams.

The **Townsend's Big-eared** bat can weigh 7 to 12 grams.

- 9. One gram is about the weight of one big paper clip. Count out the number of paper clips your bat would weigh if it was <u>least heavy</u>. Hold them in your hand. Do you think this is heavy?
- 10. Count out the number of paper clips your bat would weigh if it was the <u>heaviest</u>. Hold them in your hand. Do you think this is heavy?
- 11. The shortest length of the **Mexican Free-tailed** bat is 9 cm long. The longest length of this bat is 11 cm long.

The shortest length of the **Pallid** bat is 9 cm long. The longest length of this bat is 10 cm long.

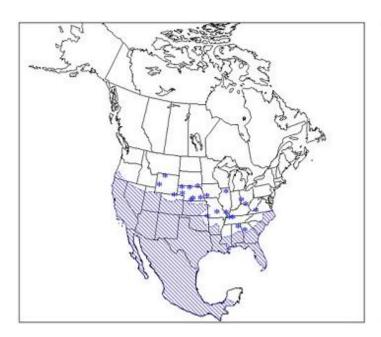
The shortest length of the **Silver-haired** bat is 9 cm long. The longest length of this bat is 11 cm long.

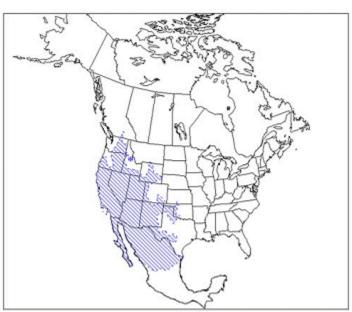
The shortest length of this **Townsend's Big-eared bat** is 9 cm long. The longest length of this bat is 11 cm long.

- 12. Draw a line below that shows the longest length this bat can be. Mark the shortest length this bat can be.
- 13. Shade in 4 states in North America that this bat lives in

Mexican Free-tailed Bat

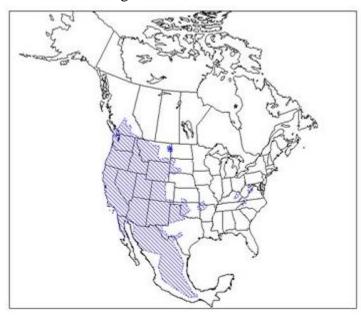
Pallid Bat





Silver-haired Bat

Townsend's Big-eared



14. The **Mexican Free-tailed bat** usually eats many different kinds of insects.

The **Pallid bat** usually eats large ground-dwelling insects.

The Silver-haired bat usually eats small, soft-bodied insects such as ants and flies.

The **Townsend's Big-eared bat** usually eats moths.

Lava Beds National Monument

Extension Bat Math, Teacher Answer Sheet

1. If a maternity colony in Lava Beds National Monument has 75 Silver-haired bats and each female bat gave birth to two pups how many bats would there be?

$$75 \times 2 = 150$$

75 adults + 150 pups = **225 bats**

2. How great of an increase in percentage is this?

$$\underline{150 \text{ new bats}}$$
 = $\underline{150 \text{ new bats}}$ = $2 = 200\%$ increase in population $\overline{75 \text{ bats}}$

3. The Townsend's big-eared bat has large ears, sometimes 1/3 of its' body length! How tall is your teacher in inches? If they had ears that were 1/3 the length of their body how long would their ears be?

If the teacher was Y inches tall.

$$\underline{\underline{Y \text{ inches}}}_{1} \quad \underline{x} \quad \underline{\underline{1}}_{3} = \underline{\underline{Y \text{ inches}}} = Z \text{ inches}$$

4. Lava Beds has colonies of about 650 hibernating Townsend's Big-eared bats. If 95% of these bats died how many would be left?

$$650 \times .95 = 618$$

 $650 - 618 = 33$

5. White Nose Syndrome is an illness that is only found in the eastern United States, which leads to the death of a bat. The tell tale sign of WNS is a fuzzy white fungus around a bat's face. Some caves have been found with over 95% of the bats in a colony dead with this fungus around their faces. If a colony of 2 million, Townsend's Big-eared Bats had 95% of those bats die how many would be left?

$$2,000,000 \text{ x } .95 = 1,900,000$$

2,000,000

-1,900,000 Only one hundred-thousand would be left!!

100,000